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**Kezar**

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(54) **DUAL SHAFT ALTERNATING DRIVE  
ACTUATOR**

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**ABSTRACT**

An actuator provides two step control of a dual valve or dual damper, such as in an HVAC system. The gear train includes projections on top and bottom faces of the final gear, the projections being rotationally offset from each other by an angle. Each projection mates into a slot of a Geneva-gear-type output member, with two such output members accessible, one on the top of the actuator and one on the bottom of the actuator. During the portion of the throw that the upwardly facing projection is in the slot of the upwardly exposed Geneva-type output gear, the final gear rotates the upper output member to control one flow blockage member in the valve or damper. During another portion of the throw, rotation of the final gear does not rotate the upper output member, but instead rotates the lower output member and its flow blockage member.

**18 Claims, 10 Drawing Sheets**

